CONTENTS

Research Papers

Electrical–hydraulic properties of unsaturated Ottawa sands
T. Gorman (Omaha, NE, U.S.A.) and W.E. Kelly (Lincoln, NE, U.S.A.) 1
Bias in log-transformed frequency distributions
B.G. Wilson, B.J. Adams and B.W. Karney (Toronto, Ont., Canada) 19
Resistivity–recharge relationships — field study
B. Curtis and W.E. Kelly (Lincoln, NE, U.S.A.) 39
Examining evapotranspiration in a semi-arid region using stable isotopes of hydrogen and oxygen
C.D. Walker (Glen Osmond, S.A., Australia) and J.-P. Brunel (Paris, France) 55
Sliding maxima
M.A.J. van Montfort (Wageningen, The Netherlands) 77
Simulation of saltwater intrusion in the Northern Guam Lens using a microcomputer
D.N. Contractor and R. Srivastava (Tucson, AZ, U.S.A.). 87
Tracing the origin of natural waters in a glacial till slope during snowmelt
B. Espeby (Stockholm, Sweden) 107
A stochastic model of the internal structure of convective precipitation in time at a raingauge site
R. García-Bartual and J. Marco (Valencia, Spain). 129
Assessing hydrologic model nonlinearity using response surface plots
G. Kuczera (Newcastle, N.S.W., Australia) 143
Sampling errors for raingauge-derived mean areal daily and monthly rainfall
A.W. Seed (Pretoria, South Africa) and G.L. Austin (Ste Anne de Bellevue, Que., Canada) 163
Evolution of the chemical composition of water passing through the unsaturated zone to groundwater at an experimental site at the University of São Paulo, Brazil
M. Szikszay, A.A. Kimmelmann, R. Hypolito, R.M. Figueira and R.H. Sameshima (São Paulo, Brazil). 175
Overflow thermal springs of Tuscany (Italy)
R. Celati, S. Grassi and C. Calore (Pisa, Italy) 191
Parameter transferability for a daily rainfall disaggregation model
T.W. Econopouly (Johnson City, NY, U.S.A.), D.R. Davis and D.A. Woolhiser (Tucson, AZ, U.S.A.). 209
Water balance of snow tussock grassland in New Zealand
D.I. Campbell and D.L. Murray (Dunedin, New Zealand) 229
Drawdown around a well in a heterogeneous, leaky aquifer system
F. Székely (Kuwait City, Kuwait) 247
Estimation of the hydraulic parameters of the Rio-Maior aquifer in Portugal by using stochastic inverse modeling
Y. Rubin (Berkeley, CA, U.S.A.), J.P. Lobo Ferreira, J.D. Rodrigues (Lisbon, Portugal) and G. Dagan (Tel Aviv, Israel) 257
The interception, throughfall and stemflow in a forest in Highland Scotland and the comparison with other upland forests in the U.K.
R.C. Johnson (Lochearnhead, U.K.) 281
Hydraulic properties in an operational model of frozen soil
L.-C. Lundin (Uppsala, Sweden) 289
Transport in heterogeneous porous formations, 1. Time-dependent convective dispersion
J. Valiantzas and C. Thirriot (Toulouse, France) 311

Transport in heterogeneous porous formations, 2. Time-dependent double dispersion
J. Valiantzas and C. Thirriot (Toulouse, France) 329
A sensitivity analysis of '2D-FED', a model for seawater encroachment in leaky coastal aquifers
M.M. Sherif, V. P. Singh (Baton Rouge, LA, U.S.A.) and A.M. Amer (Safat, Kuwait) . 343
Palaeohydrogeology of the Senegal sedimentary basin: a tentative explanation of the piezometric depressions
B. Dieng (Ouagadougou, Burkina Faso), E. Ledoux (Fontainebleau, France) and G. de Marsily (Paris, France) 357
^{36}Cl in ground water of the Mazowsze basin (Poland)
J. Dowgiałło, Z. Nowicki (Warsaw, Poland), J. Beer, G. Bonani, M. Suter, H.A. Synal and W. Wölfli (Zürich, Switzerland) 373
Initial contributing area of a small watershed
W.J. Gburek (University Park, PA, U.S.A.) 387

Book Review
Applied Environmetrics Meteorological Tables
R.J. Harding (Wallingford, U.K.). 405

Guide for Authors 411